Global Poverty: the Co-Production of Knowledge and Politics

St Clair, Asunción Lera

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Global Poverty

The Co-Production of Knowledge and Politics

ASUNCIÓN LERA ST CLAIR
University of Bergen

ABSTRACT This article argues that insights from the field of social studies of science and technology are relevant for assessing the highly politicized and contested knowledge for development and the eradication of global poverty elaborated by the World Bank. The World Bank, which has become a transnational expert institution, is best characterized as a 'site of co-production', producing both knowledge and social orders. Such a perspective helps in unveiling problems related to expertise and problems of delegation fundamental in relations between politics and knowledge. At the same time, applying insights from the social studies of science and technology provides an explanatory framework for knowledge-based science advice and suggestions for increasing the salience, credibility and legitimacy of such knowledge. The article calls for institutional innovations that may lead to dialogue and a more transparent and accountable debate among competing knowledge claims and political visions within and outside transnational expert bodies.

KEYWORDS *expertise*, *global poverty*, *knowledge*, *social studies of science*, *World Bank*

Introduction

Knowledge for development and the eradication of global poverty is primarily in the hands of a transnational expert institution, the World Bank (the Bank). Under pressure from critics on all sides, the Bank has responded by emphasizing its role as producer of policy-oriented knowledge for development. Yet views and prospects announced by the Bank are increasingly contested by critics from both left and right, from the local to the global arena. Critics tend to dismiss this institution's knowledge, arguing it is

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politicized and simply a tool for the spread of neoliberal economic globalization benefiting global elites. Defenders of the Bank claim such arguments are misguided and, assuming the objectivity and neutrality of economic science, they argue the Bank possesses the best experts and knowledge base in the fields of development and poverty reduction, knowledge used by most other UN institutions and donors. This debate is not productive in terms of improving knowledge for development and the eradication of poverty, nor does it disentangle the circularity created by the expert institutionalization processes we see in the Bank (St Clair, 2006). A lack of engaged criticism on the side of academics leads to a fruitless and highly politicized debate rather than to a sustained investigation into the ways in which knowledge is sorted out from non-knowledge and the sources of valid expertise. Although a body of literature is emerging assessing ideas and knowledge about global poverty in transnational settings it is so far a very limited field (see, for example, Bøas and McNeill, 2004; Deacon, 2004; Emmerij et al., 2001; Gould and Marcussen, 2004; Stone, 2003; UNRISD, 2004). Often the discussion about knowledge at the transnational level is too focused on the notion of epistemic communities, but the problem of global poverty is far more complex than that captured by the notion of epistemic communities. For example, we face multiple claims to expertise that need to be evaluated and assessed. And although I do not refer to this body of work, authors addressing development as discourse offer few constructive alternatives; while millions of lives in poor countries depend on the knowledge and policy recommendations issued by expert bodies like the Bank.

This article argues that insights from the field of social studies of science and technology (S&TS), which have offered fruitful analyses of other expert bodies dealing with highly politicized and contested scientific knowledge for policy-making, are relevant for assessing knowledge for development and eradicating global poverty; relevant for global social policy. A transnational expert institution like the Bank is best characterized as a regulatory agency, as a 'site of co-production' producing both knowledge and social orders. Such a perspective unveils problems related to expertise and problems of delegation fundamental in relations between politics and knowledge such as moral hazard and adverse selection. At the same time, applying insights from S&TS provides an explanatory framework for knowledge-based science advice and suggestions for increasing the salience, credibility and legitimacy of such knowledge. Following the example of research on other highly politicized global problems such as climate change, the article calls for institutional innovations that would lead to dialogue among competing knowledge and governance claims. The aim is to open up a space for debating the possibility of more salient, credible and legitimate knowledge about global poverty, leading to more democratic and accountable knowledge production, and to a more transparent vision of the world orders entangled in such knowledge.

The first section of the article summarizes some of the problems related to

the institutionalization of expertise. It highlights the constructed character of knowledge about poverty, including quantitative knowledge, and presents some of the disagreements on knowledge about global poverty. These are not only empirical disagreements, but also epistemological, political and ethical. The next section presents the notions of boundary work, boundary objects and the idiom of co-production as insights to analyse processes of knowledge formation in transnational expert institutions. The third section introduces and applies the notion of boundary organization – an institution straddling the shifting divide between science in the making and politics in the making – as a tool to address the problems of delegation in the Bank. The article concludes by proposing the investigation of institutional innovations to regulate the production of knowledge about global poverty along the lines of the Intergovernmental Panel on Climate Change (IPCC).

Knowledge about Global Poverty: Between Science in the Making and Politics in the Making

Rather than a self-evident process, establishing expertise on complex and ill-structured social problems such as global poverty is beset with problems. Expert claims are usually determined by the interrelations between audiences, experts and the legitimacy of knowledge. But in many cases, these interrelations are a mere circular process where experts seek legitimacy of their knowledge claims among audiences that have been either created by or are dependent on the same experts that seek legitimacy in the first place. This is common among expert institutions, as their formation and evolution have often depended on their building up a new field of knowledge (Turner, 2003). I have argued elsewhere that this is also the case of the World Bank, a state-like transnational expert institution with discretionary powers appropriate to political actors that generates the same audiences that legitimize its knowledge claims (St Clair, 2006). These legitimating audiences are often other institutions that have discretionary powers such as for example the International Monetary Fund (IMF) or the governments from client countries. In addition, unlike other experts, the Bank's staff do have discretionary powers, for example to withdraw a loan, to cancel out a development project and even to determine the credit worthiness of a whole country and thus the financial future of many people.

Global poverty is highly contested and politicized. It is an ill-structured and complex social problem able to be defined in different ways, the problem space changing with time and location, and the causal arguments being slippery and difficult to establish. Poverty definitions and assessments are not accounts of facts, but rather 'fact-surrogates', well-structured parts of an ill-structured and complex whole (St Clair, 2006). Fact-surrogates are partial pictures drawn with the cognitive tools of particular disciplines. In the case of

global poverty, the cognitive values of economics such as quantification, simplicity and measurability, just to name the most relevant, are clearly dominant (St Clair, 2004a). Any non-economist working in the World Bank is often forced to present their data according to these cognitive values if they wish their findings to be taken as knowledge. The most we can say about the current status of knowledge about global poverty is that it reflects a 'consensus among certain scientists' rather than a 'scientific consensus'. The distinction is important, as the first warns us of the tentative character of knowledge and thus opens up space for debate and discussion, whereas the latter tends to convey a more permanent and objective knowledge judgement that only other expert claims may be able to challenge. As Bruno Latour (2003) argues, acknowledging the partially constructed character of knowledge is the best protection against all sorts of fundamentalisms, including market and postmodern relativist fundamentalisms. In addition, not only are descriptions of what poverty is value laden, but so also are prescriptions as to what are the best possible ways to reduce it. Contrary to common understandings, even quantitative knowledge is simultaneously knowledge and action; social indicators, for example, are fact-surrogates rather than objective data fully capturing reality.

One of the main reasons offered by economists for the supremacy of their knowledge is their capacity to offer explanations and predictions about poverty that are measurable, comparable and able to offer reliable guidance for policy-making as well as effective strategies. However, sociologists of knowledge and historians have substantially challenged such simplification and warned about trusting numbers too much (Porter, 1996). According to Alain Desrosiéres' (1998) *The Politics of Large Numbers: A History of Statistical Reasoning*, since the 18th century the history of economic sciences was shaped by the debates between the construction of nation-states and their relations to markets. As different ideologies about the relations between these two institutions developed (mercantilism, liberalism, Keynesianism, neoliberalism), statistical observations were shaped by them, and were causes of the ways these ideologies developed. Desrosiéres' modern sociology of knowledge unveils the continuum between science being made and science being applied and the interconnections between the administrative requirements of institutions (the state, or today's transnational institutions) and the production of specific facts on which to base policy decisions. Statistical knowledge, according to Desrosiéres, bases its legitimacy on its capacity to offer decision-makers objective facts on which to base policy-making, but the social facts measured by statistical reasoning can be thought of simultaneously as existing and as a convention. This means that statistical knowledge on and related to poverty policies or social policy is science in the making. The aggregates, averages and estimates on which policy-makers base their decisions are surrogate facts – real and constructed at the same time – created to facilitate decision processes that are themselves ill-structured, uncertain and often

risky, and to justify the predictions of such polices. The same applies to other types of knowledge about poverty.

Making transparent the characteristics outlined above is crucial for a democratic and representative debate about how to define global poverty, what its causes are and how to address them. It is important to deepen our understandings of whose expert knowledge claims are legitimate and which audiences legitimize those claims; and to identify possible circular dynamics between expertise, audiences and the legitimacy of that expertise.

Take, for example, the question whether global poverty has increased or decreased. Statistical data showing decreases in poverty reinforce existing poverty policies, whereas the opposite would discredit them. In recent years, this issue has become the battleground of economic neoliberal globalization; those defending the openness of markets using decreasing poverty numbers as their main evidence for the well-functioning of globalization and rejecting critics as non-experts unable to understand the theories underlying such processes. A clear answer to current global poverty trends, thus, is of the utmost importance, but I do not think this is only an empirical matter; rather, assessing poverty trends is an epistemic, political and moral issue as well. While citizens in advanced economies are told by press summaries that poverty has been decreasing since the 1980s, a closer look into the problems of global poverty knowledge formation shows us that we really do not know whether this is the case or not. According to the *Human Development Report 2003* (UNDP, 2003), which provides the most extensive effort to measure the Millennium Development Goals (MDGs), a comprehensive and reliable statistical global survey of severe poverty, basic living conditions and basic social indicators has never been conducted; there are no comparable and reliable data about global poverty trends; in addition, other MDGs indicators and the data most actors use are being challenged as misleading and unreliable even by some of the very institutions that actually use the data.

The problem is not only this knowledge gap, but also that there is an ongoing politically and ethically grounded methodological debate, of which we hear little, outside the expert elites. In regard to income poverty, the methodological debate acknowledged in the *Human Development Report 2003* refers to the poverty line choice and elaboration, about the reliability of data on poverty increases. These debates are intrinsically related to the reliability of the economic policies prescribed to reduce poverty; to whether globalization works or does not work for the poor; whether high wealth polarization within and across countries matters in these debates; and what to do and why about all these complicated and intrinsically related matters. That is, questions about trends in global poverty are epistemological, political and ethical as much as empirical. As methodologies are essentially conceptual frameworks, with their own epistemological foundations, concepts of poverty and sets of methods (Kanji, 2003), a purely empirical approach to the problem is clearly insufficient. For example, questions about increases in poverty

depend on what people look at: some people may look at absolute numbers and others may look at relative numbers. The choice is made through the cognitive values of economics that assure neutrality with regard to population scale (Chakravarty et al., 2002). Another substantially important datum to evaluate global poverty trends commonly left out because of the cognitive values of economics is the people who have actually died due to poverty-related causes.[1] Similarly, Pogge and Reddy (2003) claim that the Bank's estimates of global poverty and its trends are neither meaningful nor reliable, leading to an understatement of the actual numbers of people living in extreme poverty.

Debates about the flaws of methodologies and the role that the cognitive authority of economic science has are crucial for appropriate poverty policies. Jan Vandemoortele (2002) warns us that one of the most dangerous consequences of using the artificial poverty line elaborated by the Bank – which relies on averages and aggregates – is that it leads to unsound deductions between the relationship of increases in growth and a consequent almost one to one reduction of poverty. Bank experts, who argue in this direction, support their claims by logarithmic regressions that show how poverty trends lower as economic growth raises. But according to Vandemoortele, this is fallacious reasoning. 'The moment one ceases to realize that the average is an abstract concept, one can fall victim to the fallacy of "misplaced concreteness". The fallacy can lead to unwarranted conclusions about concrete realities – based on deduction from abstractions, not on real observations.' Vandemoortele adds, 'the fact that the income of the poor rises one-for-one with overall per capita income *may be statistically correct*, *but it is not necessarily true*' (Vandemoortele, 2002: 9; emphasis added), a warning already made by Desrosiéres (1998). Furthermore, Vandermoortele offers worrisome data about China's poverty reduction, often used as the most clear example that neoliberal globalization works for the poor. This calls for further research.

Perhaps the most worrisome claim about the misleading role of an uncritical faith in one's discipline's cognitive values is made by Robert Wade (2004), who argues that the reason why economists have not taken seriously what now starts to be undeniably clear, that wealth polarizes towards those who are already wealthy leading to deepening levels of poverty and to increases in inequalities – what may be called the law of decreasing returns – is because of economists' need to submit to established cognitive values of quantification. As Summer (2004) argues, econometrics has become the most important source for 'evidence' in knowledge about global poverty.

Disagreements are also clearly related to political views, and in particular to debates as to whether globalization is or is not good for the poor. While at the transnational level we see an emphasis on a multidimensional view of poverty, some European scholars are questioning to what extent this multidimensional view is due more to the need to offer broad definitions that may satisfy the current pressures from civil society rather than to expressing what needs to be

done to eradicate poverty. Several poverty researchers warn that multi-dimensional views of poverty are deepening disagreements (Gordon and Townsend, 2000; Townsend, 2002). For example, Townsend accuses multi-lateral institutions like the Bank and the G8 nations of endorsing misguided policy choices and claims that disagreements about poverty are used to hide political interests in international poverty reduction. He calls for the elaboration of a transparently elaborated definition of poverty and a measuring system, the result of the common work of poverty researchers, donors and transnational institutions (Townsend, 2002). Townsend argues for a more narrow 'scientific' definition of poverty that would allow for proper comparisons and effective policy. This new call has now become a 'Statement by European Social Scientists'. By making transparent the tentative character of the agreement, what these researchers and policy-makers are demanding is an 'agreement among scientists' that recognizes the fact-surrogate character of global poverty and the ill-structured context of policy decisions; arguably conscious of the simultaneous role this has in the making of global politics. In addition, Townsend warns of the shortcomings of the methodological territorialism that dominates research performed by the Bank – which looks at poverty as a problem enclosed by the geography of nation-states – and reminds us that there is a lot of relevant knowledge in European countries as to how best to deal with poverty and social policy; this knowledge deserves to be spread out or at least considered as evidence relevant for developing and less developed countries. A similar line of argument is presented by David Held (2004).

Ravi Kanbur, former lead editor of the Bank's W*orld Development Report 2000–1* on poverty, claims that he found substantial disagreements about the content and theoretical framework of the report among various stakeholders. These disagreements are related to values, frameworks, perspectives and ideals of what the global community should look like, issues common to highly complex and ill-structured global problems. Kanbur warns that 'inappropriate simplifying and hardening of policy messages, either as a way of constraining the operation of an aid agency, or as a negotiating device because of the fear that nuancing will be seen as a sign of weakness in policy debate, will only serve to polarize the debate further and will not be conducive to broad based dialogue' (Kanbur, 2001: 16).

All disagreements highlighted here can be addressed by looking at what counts as knowledge and who counts as an expert and who and what do not. In turn, these disagreements are political debates as much as empirical or epistemological ones, and driven by ethical visions of what ought to be an optimal social order; they are about both knowledge and action. If knowledge-based policy-making inhabits the divide of knowledge in the making and politics in the making, and given that knowledge is in the hands, primarily, of expert bureaucracies where there is a circular dynamic between expertise, audiences and the legitimacy of that expertise, common resources

to guarantee the relevance, quality and accuracy of knowledge, such as standard peer review processes, are insufficient. Following insights from S&TS may help in interpreting and accounting for the complex problem of global poverty and perhaps provide a way to move forward towards a transparent and more democratic debate.

Transnational Expert Institutions: Boundary Work and the Idiom of Co-Production

According to the literature on social science studies, one of the most fundamental ways in which knowledge about social facts is formulated is by making a distinction between what is knowledge or scientific and what is not knowledge, not a scientific judgement. Rather than a matter of identifying cognitive authority, what demarcates science from non-science is not a particular set of specific characteristics but rather a combination of contingencies and strategic behaviour referred to as boundary work (Gieryn, 1995, 1999; Jasanoff, 1990, 2004). Boundary work views science as partly constructed. Science is not the outcome of unmediated enquiry into the world but rather it is a social and value-laden highly complex enterprise that involves many actors besides scientists. The notion of boundary work aims to explain linkages between different social worlds and the negotiations that are part of what appears objective and value-free codified knowledge. This notion helps in the understanding of the complicated aspects of knowledge-based policy-making processes, as Jasanoff (1990, 2004) has shown in her analysis of the roles of some US advisory committees and the interactions these have between politicians and scientists. Given the boundaries between science and non-science are provisional and ambiguous, Jasanoff argues, the more we blur them the more transparent science policy becomes. Policy is an issue made between different social worlds and demands the possibility of responding to different interests and diverse goals and ends. Critics of constructivist views may argue that viewing scientific knowledge as boundary work opens the door to dangerous relativism, given that constructivism questions the rationality and objectivity claims of science. But knowledge-based policy, Jasanoff and Gieryn claim, is a hybrid product, where the more politicians and scientists try to separate their domains of expertise, the more difficult it becomes to decide policy. And as stated earlier, acknowledging the partial character of knowledge about complex and ill-structured issues – concepts and approaches reflect fact-surrogates rather than objective truths – may be a way to avoid fundamentalisms and to open up space for debate and deliberation. Science in practice is not the same as forming knowledge within academic environments. Economic science does not solve many problems experts encounter on the ground; not even when simply trying to collect data.

For example, fact-finding missions from either the World Bank or the IMF tend to be seen as offering the same types of certainty and objectivity as economic theories offered in academic theoretical publications. Yet there are often massive difficulties in establishing the economic situation of a country. IMF or Bank missions are messy and complex fact-finding exercises, often leading to uncertain and even often risky guesses experts are forced to make due to the lack of data or contradictory statistical reports of different ministries in client countries. The outcome of such missions is not objective science, but rather the result of negotiations experts make with people whose knowledge judgements they deem are most reliable and accurate and with whom they are able to establish social relations. Numbers often end up being *interpreted* rather than collected; such interpretations conform more to particular circumstances experts find themselves immersed in or simply those they are able to get because of their social skills. As Richard Harper (2000) argues in his detailed account of an IMF mission, these processes are best seen as 'social processes'. The results are as much the outcome of a combination of contingencies and strategic behaviour as the outcome of applied expertise; that is, building expert knowledge is the result of boundary work. Similarly, the expert work consultants or Bank staff end up performing in client countries is similarly messy and ill-structured. In the words of a consultant trying to establish food security in Sierra Leone, this was more about detective work and negotiation; about sorting out what was relevant knowledge from what was not (Griffiths, 2003). The boundary terminology reflects then not only the sorting out of knowledge and non-knowledge, but also the interactions between knowledge and politics.

Experts need to be able to link not only knowledge and action, research and policy, but also diverse social worlds often with competing and diverse interests and concerns. Boundary work is, then, not only about negotiations and contingencies, but also requires a common language, a meeting point where stakeholders of these messy and complex processes of building knowledge can meet. From this perspective, ideas informing policy are best seen as 'boundary objects', analytical concepts that transform boundary work into a more comprehensive and perhaps fruitful process. Boundary objects 'are both plastic enough to adapt to local needs and constraints of the several parties employing them, yet robust enough to maintain a common identity across sites. These boundary objects allow members of different communities to work together around them, and yet maintain their disparate identities' (Star and Griesemer, 1989: 393). Boundary objects can be 'things like an article in a research journal, in which unsubstantiated claims may represent research fraud to a congressional investigator, but merely unwarranted speculation to a researcher colleague' (Guston, 2000: 29). Boundary objects can be expanded into sets, as Joan Fujimura (1992) claims, and become 'standardized packages'. 'Standardized packages are used by researchers to define a conceptual and technical work space which is less abstract, less ill-

structured, less ambiguous and less amorphous' (Fujimura, 1992: 169). Such boundary tools are interfaces among different agents and connect different social worlds, emphasizing the collaboration of sets of actors in their desire to achieve results satisfactory to all while each maintains their own integrity and their respective social worlds.

In short, the idiom of co-production reminds us that knowledge both embeds and is embedded in social identities, other institutions, narratives and representations. From this viewpoint, ways of knowing the world are inseparably linked to the ways in which people seek to organize and control it. An important goal of the 'idiom of co-production' is that it seeks to address the interrelated constructions of both knowledge and governance systems, taking a comprehensive view of the relations between knowledge, culture and power (Jasanoff, 2004). What distinguishes knowledge from non-knowledge are not only cognitive qualities but also sets of contingencies and strategic behaviours best addressed as boundary work. Determining valid economic knowledge in developing countries is often more a matter of social skills and improvisation than a mere implementation of academic economics; like determining the carcinogenic levels of food additives, quantification of food production and provisions for possible food security, just to take an example, requires linking such knowledge with structures of power, culture and the wider social worlds. This helps in addressing the problems of delegation fundamental in relations between politics and knowledge.

Boundary Organizations

A good example of how expert institutions have minimized problems of delegation and attempted to stabilize the complexities of boundary work is offered by David Guston (2000) in a detailed account of the history of US science policy. Guston takes the boundary approach as his point of departure to conceptualize the transformations that have occurred in some US institutions entrusted with knowledge-based public policy-making. The idea that the relations between scientists and politicians is analogous to a social contract – first scientists formulate knowledge which then is passed on to policy-makers who decide to use or not to use such knowledge – is an obsolete assumption. In practice, Guston argues, the need to overcome the problems posed by the delegatory nature of research has led expert institutions towards a model he calls, 'collaborative assurance'. This model is characterized by accountability controls able to manage, on the one hand, the integrity of scientific findings, and, on the other, the productivity of research for those funding it. Institutions such as the National Institutes of Health (NIH), Guston argues, have acknowledged the social and political content of their work. Taking as a point of departure the notion of boundary object, Guston claims that institutions that have moved to a regime of mutual collaboration

– like the NIH – have eventually become the boundary object themselves, they can be seen as *boundary organizations*, sites of co-production of knowledge and politics able to avoid the politicization of science as much as the undue influence of scientists on political decisions.

According to Guston, the delegation from governments to the scientific community is an instance of principal–agent relations. Even though we cannot always identify single individuals in these roles, institutions and legislative bodies perform these roles and thus can be claimed to have principal–agent relations. This delegatory relation is subject to two problems: adverse selection and moral hazard. Adverse selection because the principal lacks knowledge and thus has difficulty selecting an agent; moral hazard because the agent may have an incentive to cheat or act unacceptably. The different ways to solve these two problems are used by Guston (2000) to describe different science regimes in the US, of which the roles performed by boundary organizations is the latest form to control these problems derived from asymmetries of knowledge. But for Guston, principal–agent theory is simply one more tool in his analysis of science policy:

> . . . the pattern of principal–agent mirrors the division between political and scientific actors, and the asymmetric information seems to reinforce the belief of realists in science's claim to the consensual production of falsifiable knowledge under unique normative arrangements. For this reason the complementarity of constructivist work is crucial to demonstrate the contingencies and nuance of these distinctions. (Guston, 2000: 147–8)

Divisions between agents and principals are as blurred as the divisions between scientists and politicians. What may seem an easy two-party relationship dissolves into complex relations in which, for example, principals are patrons of sets of actors who then become principals to other agents. Researchers need agents of their own to help them achieve the goals demanded by policy-makers. It is here where the role of boundary objects and standardized packages becomes crucial. Ideas need to offer more than mere packaged knowledge; they must be able, on the one hand, to speak to their patrons, and, on the other hand, to talk to their scientific peers. In order to guarantee integrity and productivity, there is a need for dual agency. And the boundary organization is the expression of this dual agency.

A boundary organization offers a solution to principal–agent problems in science because it offers different lines of accountability to the worlds of science and politics. The dual agency of the boundary organization is what makes it a site of co-production, the simultaneous production of knowledge and social order. 'Boundary organizations are involved in co-production in two ways. They facilitate collaboration between scientists and nonscientists; and they create a combined scientific order' (Guston, 2000: 149). The notion of co-production is now becoming a central analytical tool in furthering debates about the democratization of scientific knowledge (Jasanoff, 2004).

The crucial role of these institutions is, then, to assure the stability between the domains of science and politics, to speak to principals in both domains and to do so in a way that integrity and productivity can be assured. Speaking differently to different audiences, boundary organizations can bring stability to usually controversial issues. Furthermore, working for more than one principal, boundary organizations may be a way to avoid the politization of science as well as the scientification of politics. Science policy deals with issues that are highly controversial, and subject to contesting views that would lead to contesting policy recommendations. Jasanoff (1990) illustrates this point in regards the role of the Health Effects Institute (HEI). 'In an environment in which government scientists and industry scientists are often on opposing sides of interpreting evidence about environmental health and safety, HEI's experience suggests the benefits of constructing dual agency. Because both government and industry fund HEI, neither party could productively accuse it of being captive of the other. Supplemented by two peer review committees, one of which reviewed research proposals and the other which reviewed research results, HEI has been relatively successful in constructing a reputation of objectivity' (Guston, 2000: 151).

There are substantial lessons to draw from approaches that assess knowledge elaborated or endorsed by multilateral institutions like the Bank. Boundary elements are already in place. Ideas in the UN system often work as boundary concepts. A good example is the twin notion of human development-capability defended by the Human Development Report Office of the United Nations Development Programme (St Clair, 2004b). Notions such as social capital, capabilities, empowerment and many others are needed in boundary work so that they become part of the knowledge systems of these institutions. In the process they become distorted and transformed, often to altogether different fact-surrogates. The combination of the definition 'income poverty' with the methodology to account for poverty using the '1 US$ a day' could be seen as a standardized package. Disagreements such as the ones outlined earlier in this article often lead to debates as to what is and what is not knowledge, and often certain hegemonic fact-surrogates (including particular statistical trends) are presented as the only scientific truths because of obsolete social contract assumptions that presume the linearity between knowledge and policy-making.

The boundary work of the complex set of institutions that form the Bank, however, is highly complicated. Although some ideas are hegemonic (Bøas and McNeill, 2004), and there are diverse epistemic communities within the Bank that compete to get their views accepted as knowledge and translated into policies, these analytical tools are not enough to capture such complexity. It is best to talk in terms of diverse levels of boundary work among competing groups using different boundary objects or interpreting them in diverse ways. As Stephen Hilgartner elaborates in his study of the struggles over the credibility of science advice in the US National Academies of Science, the

sorting of knowledge and non-knowledge and the ways in which the authority of experts is created, contested and maintained is similar to the performance of a drama. Such performance is often dedicated to particular audiences, those who in the end legitimize the performer's knowledge judgements. We can talk about front-stage (public) and back-stage (non-disclosed) boundary works operating in parallel and often leading to diverse policy suggestions (Hilgartner, 2000). It is even possible to identify a heterogeneous and flexible view of the boundaries between knowledge and politics, and thus attempt to identify various patterns of science–policy boundaries coexisting within the same institutional framework (Halffman and Hoppe, 2004).

Multilateral institutions are arenas to coordinate the social and economic relations between North and South governments, in theory bridging the interests of both types of countries (donors and recipients). This is the simplest sense of principal–agent relations in development aid. Multilateralism is viewed precisely as a bridge to coordinate relations between countries with different powers. In principle, multilateralism avoids the use of bilateral aid as a tool for pursuing the foreign policy interests of donors. The multilateral institutions are said to be the arena where those interests are set aside, thus enabling their 'neutral' coordination. We can talk also about a dual principal–agent relation where both donors and recipients are principals: donor-principal and recipient-principal; but there is another relation in which the multilateral is the principal and the recipient country is the agent. In the case of the Bank, the member countries are divided into those who mostly give funds and those who mostly receive them, yet all belong to the structure of the organization and all must make contributions if they are to receive funding. Given that since its establishment in 1945 the Bank was conceived as an agent of all member countries and their constituencies, it may be said that both donors and recipients are principals (Ellerman, 2002; Kapur, 2002). Furthermore, in-house research funded with money from donor countries generates a dual role for the multilateral itself, where it becomes an agent of the donor country for its in-house research. Or we can interpret such in-house research capacity as a principal–agent relation within the multilateral itself, as when some departments endow funds to others that act as grantee institutions (the research departments). A last way in which we can speak of principal–agent relations is regarding the widely spread use of external consultants. The Bank acts as a principal funding research realized by agents either independent of or in academia. This tentative cartography of roles can be expanded if we include the actual principal–agent relations as they seem to occur within the framework of global economics and global politics by including the role of civil society organizations, the private sector or financial markets.

These complex relations are summarized in Table 1.

It is important to distinguish the topography of principal–agent relations in this table from that depicted by defenders of the idea that the World Bank is the institution able to offer the best type of knowledge for development. For

TABLE I *Principle–agent relations*

Principal	*Agent*
Donor countries	Recipient countries
Donor countries	In-house researchers
Recipient countries	Bank
Bank	Recipient countries
Bank	In-house researchers (grantee dept.)
Bank	External consultants

instance, Gilbert and Vines argue for the need to strengthen the research role of the Bank because it is 'in a position to give advice which is more disinterested than that provided by professional consultants, more professional than that provided by academics and more comprehensive than that provided by NGOs' (Gilbert and Vines, 2000: 29). The assumption of Gilbert and Vines is that the Bank is able to provide research independent of political pressures and that knowledge generated by the Bank is linear (first knowledge is created, then it must be subsumed in the process of policy-making). In support of that view, Lyn Squire, former head of research at the Bank and currently director of the Global Development Network, claims that in-house research is needed precisely to avoid principal–agent problems because the staff of the Bank has an operational mandate. Principal–agent problems 'would arise if the Bank had to rely on outside research' (Squire, 2000: 116). Squire's analysis bypasses in-house delegation problems that govern a complex institution like the Bank. Also, Squire presumes the separation of politics and knowledge that a single focus on principal–agent offers (we must recall that Guston complements this with a constructivist account of science). Squire assumes that policy-making is a linear process, thus his argument supports more the circularity between experts, audience and legitimating of the expertise pointed out earlier rather than solving the delegatory problems of the Bank's knowledge.

Extensive research elaborating a full cartography of boundary principal–agent relations in an expert bureaucracy like the Bank may be one way to devise proposals for institutional reform. Also, it can help in determining to what extent this transnational expert institution may act as a boundary organization and how far it has to go to accomplish the roles of overcoming the problems of delegation posed by its research capacities. It also gives us a basis to establish the possible asymmetric relations of knowledge in all the principal–agent relations. Addressing ways in which the problems of moral hazard and adverse selection could be solved may lead to avoiding the common critique that the Bank contracts intellectual work only with those who are predisposed to agree with their views and goals. Consequently, it would be possible to elaborate different types of accountability relations.

Concluding Remarks: Towards Establishing Salience, Credibility and Legitimacy

That researchers in the field of environmental science and sustainable development are turning to use analyses from social science studies is highly significant. For example, not only is the problem of climate change as ill-structured, messy and politicized as global poverty, but also the types of institutions that are formulating knowledge about it have become, like the Bank, transnational expert institutions. Two significant research initiatives, the Global Environmental Assessment Project (GEA) and the Network for Science and Technology for Sustainability (NSTS) have recently examined the efficiency of global institutions where knowledge and policy about climate change is elaborated in terms of boundary work and boundary organizations.[2]

According to these various researchers, the challenges of sustainability and climate change require a broad notion of knowledge that unveils the political pressures and consensus building proper of global problems and global partners, while being flexible enough to accommodate many competing views, political ideologies and values. These research initiatives are elaborating holistic approaches able to deal with many levels of knowledge, many competing claims of different stakeholders; systems capable of integrating disciplines, different functions, changes in space and in time; able to travel from knowledge to action and vice versa; and elastic enough to adapt to new circumstances and problems, as well as to the requests of newly integrated actors. In addition, climate change research needs to account to what extent knowledge is the outcome of equitable assessments, and to account for the level of fairness in the evaluation of alternatives in order to achieve proper policy on such highly contested global issues as greenhouse gas emissions and their measurement. Social studies of science have helped meet these needs. Candidate boundary organizations studied by the GEA team are, for example, the Health Effects Institute (HEI), funded both by the Environmental Protection Agency (EPA) and the automobile industry to support research and regulation about air pollution; the Sea Grant Programme that aims to mediate between researchers and coastal services; the International Research Institute for Climate Prediction, which is attempting to create large climate models that will produce information that is more useable by populations vulnerable to climate change; and the Subsidiary Body for Scientific and Technological Advice (SBSTA), a forum for negotiating ideas and proposals of the Intergovernmental Panel on Climate Change (IPCC).

For instance, discussing the characteristics of the SBSTA, Clark Miller (2001) claims that 'the three main challenges of the application of science to global affairs are: first, the contingency and uncertainty inherent in knowledge about the global environment; second, the need in global environment policy context to secure credibility for scientific claims among far-flung, often highly diverse audiences; and third, the often highly contested moral choices

embedded in particular systems for producing and warranting policy-relevant science advice in international organizations' (Miller, 2001: 247). Theories of international relations, Miller adds, have tended to assume that the production of knowledge takes place outside the arena of social analysis, thus excluding the sources of power in society. But shared knowledge about global issues as elaborated in international organizations is indeed highly politicized:

> . . . a complete understanding of changing patterns of global environmental governance must investigate not only what happens after ideas acquire consensual status but also how and why those ideas – and not others – acquired credibility and authority. . . . [That means] that the processes by which policy-relevant knowledge is produced, validated, and used to make global policy are part and parcel of the political foundations of global governance being built in emerging environmental regimes and must be analyzed as such. (Miller, 2001: 249)

What flows from these authors' expansion of the boundary approach, as both entailing processes and institutions, is a model for increasing the effectiveness of knowledge about highly complex, highly contested and highly politicized issues. The call is for processes and organizations able to manage and stabilize accountability, deliberation, participation and equity; able to generate incentives for accountable knowledge; and able to somehow challenge the hegemonic position of western institutions and western researchers – the transnational knowledge elites – while engaging them.

One recommendation this article makes is to create a transnational body where research on global poverty could be reviewed and coordinated in analogous ways as knowledge about climate change is managed by the IPCC and its forum the SBSTA. Many UN agencies besides the Bank have relevant knowledge about global poverty that is not fully applied, nor is there sufficient engagement from researchers from the South and little participation of many stakeholders. Although the Bank has demonstrated an effort to reach out to its stakeholders, often via civil society organizations and through partnerships with the private sector, knowledge for policy remains primarily in the hands of the Bank's experts. The debate and disagreements are politicized and polarized leading to the hardening of policy messages, as pointed out by Kanbur (2001). A model analogous to the IPCC/SBSTA may offer an arena where all these views are sorted out in a more democratic and accountable manner and thus lead to more credibility, salience and legitimacy. These attributes are difficult to achieve as long as knowledge about and for eradicating global poverty remains in the hands of a single transnational expert institution. Even though climate change is one of the most politicized global problems today, the IPCC is viewed as the best functioning provider of scientific advice in the UN (National Academies, 2002). Global poverty deserves the same type of attention. Current disagreements about global poverty call for the successful integration of these judgements so that they meet the epistemological and normative criteria of multiple expert, policy and

public audiences. Ideally, global poverty requires sites of co-production where the relations between science and knowledge are made transparent. Such institutional mechanisms would need to offer the necessary flexibility and stability to deal with evolving problems whose descriptions change over time and across places; institutionalized expertise needs to be able to learn and to adapt to competing demands while being able to remain stable. Such institutional mechanisms would have to be able to deconstruct hegemonic visions and methods, choices and policy decisions and then reconstruct and renegotiate in a participatory, equitable and fair way with all parties. The aim is to open up a space for debating the possibility of a more salient, credible and legitimate knowledge about global poverty, leading to more democratic and accountable knowledge production, and to a more transparent vision of the world orders and the values entangled with such knowledge. Yet as difficult and complex as this role may sound, the alternative is the recognition that global problems may have to be left to sheer power relations, to Hobbesian solutions where consensus means that which the most powerful actors want. Transnational, national and local economic policies decide the lives of millions of people in both the North and the South. They deserve scrutiny well beyond the one offered by elite experts.

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NOTES

1. See Kanbur and Mukherjee's (2003) 'Premature Mortality and Poverty Measurement'. In this paper, the authors claim that poverty trends actually count those who die of poverty-related causes (identified here as premature mortality) as reducing the absolute number of poor people (deaths change demographic numbers). Something, the authors rightly claim, 'surely violate[s] our basic intuitions'.
2. The Global Environmental Assessment (GEA), a research project of the John F. Kennedy School of Government, Harvard University, is a 'collaborative, interdisciplinary effort to explore how assessment activities can better link scientific understanding with effective action on issues arising in the context of global environmental change. The project seeks to understand the special problems, challenges and opportunities that arise in efforts to develop common scientific assessments that are relevant and credible across multiple national circumstances and political cultures.' See Forum for Science and Technology for sustainability at http://sustsci.harvard.edu/

REFERENCES

Bøas, M. and McNeill, D. (2004) *Global Institutions and Development: Framing the World.* London: Routledge.

Chakravarty, S., Kanbur, R. and Mukherjee, D. (2002) 'Population Growth and Poverty Measurement,' Working Paper, Cornell University, http://people.cornell.edu/pages/sk145/papers.htm

Deacon, B. (2004) 'The Politics of Global Social Policy', paper presented at UNRISD Conference, Social Knowledge and International Policy Making: Exploring the Linkages, Geneva, 20–21 April.

Desrosiéres, A. (1998) *The Politics of Large Numbers: A History of Statistical Reasoning*, trans. C. Naish. Cambridge, MA: Harvard University Press.

Ellerman, D. (2002) 'Helping People Help Themselves: Autonomy-Compatible Assistance', in H. Nagy and R. Picciotto (eds) *Making Development Work: Development Learning in a World of Poverty and Wealth* (pp. 105–33). New Brunswick, NJ: Transaction Publishers.

Emmerij, L., Jolly, R. and Weiss, T. (2001) *Ahead of the Curve: UN Ideas and Global Challenges*. Bloomington: Indiana University Press.

Fujimura, J. (1992) 'Crafting Science: Standardized Packages, Boundary Objects, and Translation', in A. Pickering (ed.) *Science as Practice and Culture* (pp. 168–211). Chicago, IL: Chicago University Press.

Gieryn, T.F. (1995) 'Boundaries of Science', in S. Jasanoff, G. Markle, J. Peterson and T. Pinch (eds) *Handbook of Science and Technology Studies* (pp. 393–443). London: Sage.

Gieryn, T.F. (1999) *Cultural Boundaries of Science: Credibility on the Line*. Chicago, IL: Chicago University Press.

Gilbert, C. and Vines, D. (2000) 'The World Bank: An Overview of some Major Issues', in C. Gilbert and D. Vines (eds) *The World Bank: Structure and Policies* (pp. 10–36). Cambridge: Cambridge University Press.

Gordon, D. and Townsend, P. (2000) *Breadline Europe: The Measurement of Poverty*. London: Policy Press.

Gould, J. and Marcussen, H.S. (eds) (2004) 'Ethnographies of Aid: Exploring Development Texts and Encounters', International Development Studies, Occasional Paper 24, Roskilde University, Denmark.

Griffiths, P. (2003) *The Economist's Tale: A Consultant Encounters Hunger and the World Bank.* London: Zed Books.

Guston, D. (2000) *Between Politics and Science: Assuring the Integrity and Productivity of Research.* Cambridge: Cambridge University Press.

Halffman, W. and Hoppe, R. (2004) 'Science/Policy Boundaries: A Changing Division of Labor in Dutch Expert Policy Advice', in S. Maasse and P. Weingart (eds) *Scientific Expertise and Political Decision Making*. Dordrecht: Kluwer.

Harper, R. (2000) 'The Social Organization of the IMF's Mission Work: An Examination of International Auditing', in M. Strathern (ed.) *Audit Cultures: Anthropological Studies in Accountability, Ethics and the Academy* (pp. 21–53). London: Routledge.

Held, D. (2004) *Global Covenant: The Social Democratic Alternative to the Washington Consensus.* London: Polity Press.

Hilgartner, S. (2000) *Science on Stage: Science Advice as Public Drama*. Stanford, CA: Stanford University Press.

Jasanoff, S. (1990) *The Fifth Branch: Science Advisers as Policy Makers*. Cambridge, MA: Harvard University Press.

Jasanoff, S. (2004) 'The Idiom of Co-Production', in S. Jasanoff (ed.) *States of Knowledge: The Co-Production of Science and Social Order* (pp. 1–12). London: Routledge.

Kanbur, R. (2001) 'Economic Policy, Distribution and Poverty: The Nature of Disagreements', *World Development* 29(6): 1083–94.

Kanbur, R. and Mukherjee, D. (2003) 'Premature Mortality and Poverty Measurement', Working Paper, Cornell University, http://people.cornell.edu/pages/sk145/papers.htm

Kanji, N. (2003) 'Poverty Assessments and Programme Evaluation', lecture for Approaching Poverty: Pilot Training Course on Poverty Reduction for SIDA Staff, Solstrand, Norway, 14 January.

Kapur, D. (2002) 'Do as I Say Not as I Do: A Critique of G-7 Proposals on Reforming the MDBs', Working Paper, Department of Government, Harvard University.

Latour, B. (2003) 'The Promises of Constructivism', in D. Ihde and E. Selinger (eds) *Chasing Technoscience: Matrix for Materiality* (pp. 27–46). Bloomington: Indiana University Press.

Miller, C. (2001) 'Challenges in the Application of Science to Global Affairs: Contingency, Trust, and Moral Order', in C. Miller and P. Edwards (eds) *Changing the Atmosphere: Expert Knowledge and Environmental Governance* (pp. 247–86). Cambridge, MA: MIT Press.

National Academies (2002) Knowledge and Diplomacy: Science Advice in the *United Nations System*. Washington, DC: The National Academies Press.

Pogge, T. and Reddy S. (2003) 'How Not to Count the Poor', Working Paper, Institute of Social Analysis, Columbia University, www.socialanalysis.org

Porter, T. (1996) *Trust in Numbers: Pursuit of Objectivity in Science and in Public Life*. Princeton, NJ: Princeton University Press.

Squire, L. (2000) 'Why the World Bank Should be Involved in Development Research', in C. Gilbert and D. Vines (eds) *The World Bank: Structure and Policies* (pp. 108–31). Cambridge: Cambridge University Press.

Star, S.L. and Griesemer, J. (1989) 'Institutional Ecology, Translations and Boundary Objects: Amateurs and Professionals in Berkeley's Museum of Vertebrate Zoology, 1907–39', *Social Studies of Science* 19(3): 387–420.

St Clair, A.L. (2004a) 'The Role of Ideas in the United Nations Development Programme', in M. Bøas and D. McNeill (eds) *Global Institutions and Development: Framing the World?* (pp. 178–92). London: Routledge.

St Clair, A.L. (2004b) 'Ideas in Action: Human Development and Capability as Boundary Objects', Working Paper, Department of Sociology, University of Bergen, Norway.

St Clair, A.L. (2006) 'The World Bank as a Transnational Expertised Institution,' *Global Governance* 12(1).

Stone, D. (2003) 'The Knowledge Bank and the Global Development Network', *Global Governance* 9(1): 43–61.

Summer, A. (2004) 'Epistemology and "Evidence" in Development Studies: A Review of Dollar and Kray', *Third World Quarterly* 25(6): 1167–77.

Townsend, P. (2002) 'Poverty, Social Exclusion and Social Polarization: The Need to Construct an International Welfare State', in P. Townsend and D. Gordon (eds) *World Poverty: New Policies to Defeat an Old Enemy* (pp. 3–24). London: Policy Press.

Turner, S. (2003) *Liberal Democracy 3.0*. London: Sage.

UNDP (United Nations Development Programme) (2003) *Human Development Report 2003 Millennium Development Goals: A Compact among Nations to End Human Poverty*. New York: Oxford University Press.

UNRISD (United Nations Research in Social Development) (2004) Conference on Social Knowledge and International Policy Making: Exploring the Linkages, Geneva, 20–21 April.
Vandermoortele, J. (2002) 'Are We Really Reducing Global Poverty', Working Paper, United Nations Development Programme Bureau of Development Policy.
Wade, R. (2004) 'On the Causes of Widening World Income Inequality, or Why the Matthew Effect Prevails', *New Political Economy* 9(2): 163–88.

RÉSUMÉ

Pauvreté Mondiale: La Co-Production de la Connaissance et la Politique

Cet article suggère que les idées nées dans le domaine des études sociales sur la science et la technologie sont pertinentes dans l'évaluation de la connaissance sur le développement et la pauvreté mondiale élaborée par la Banque Mondiale, même qui a été très politisée et réfutée. La Banque Mondiale, devenue une institution transnationale de la connaissance, peut être mieux caractérisée en tant que lieu de co-production des connaissances et d'ordres sociaux. Ce point de vue nous aide à dévoiler les problèmes d'expertise et de délégation qui sont à la base de rapports entre la politique et la connaissance. Simultanément, la mise en place des idées venues des études sociales sur la science et la technologie nous offre un cadre explicatif pour l'avis scientifique fondé sur la connaissance, ainsi que de suggestions pour accroître la transcendance, crédibilité et légitimité de cette connaissance. Ce document nous incite à faire des innovations institutionnelles pour aboutir à un dialogue et débats plus transparents et responsables entre les différentes parties ayant prétentions aux connaissances et les vues politiques dedans et dehors les entités transnationales qui nous offrent leur expérience.

RESUMEN

Pobreza Mundial: La Co-Producción del Conocimiento y la Política

El presente artículo expone que las ideas procedentes del campo de los Estudios Sociales de Ciencia y Tecnología son relevantes para la evaluación del conocimiento en el desarrollo y pobreza mundial, preparado por el Banco Mundial, que ha sido altamente politizado y refutado. El Banco Mundial, que se ha convertido en una institución transnacional experta, se puede caracterizar mejor como un 'lugar de co-producción', tanto de conocimiento como de un orden social. Esta perspectiva ayuda a develar los problemas de experiencia y delegación que son fundamentales en las relaciones entre política y conocimiento. Paralelamente, la aplicación de las ideas procedentes de los Estudios Sociales de Ciencia y Tecnología ofrece un marco explicativo para el asesoramiento científico basado en el conocimiento, y sugerencias para aumentar la trascendencia, credibilidad y legitimidad de dicho conocimiento. El presente documento insta a llevar a cabo innovaciones institucionales que puedan

conducir a un diálogo y debate más transparentes y responsables entre diferentes pretensiones al conocimiento y las visiones políticas dentro y fuera de las entidades transnacionales que ofrecen su experiencia.

BIOGRAPHICAL NOTE

ASUNCIÓN LERA ST CLAIR, philosopher and sociologist, is Associate Professor at the Department of Sociology, University of Bergen, Norway, and Senior Research Fellow at the Centre for Development and the Environment (SUM), University of Oslo. She is also Secretary of the International Development Ethics Association (IDEA). Recent publications include the doctoral thesis 'Poverty Conceptions in the World Bank and the United Nations Development Programme: Knowledge, Politics, and Ethics' (University of Bergen) and 'The Role of Ideas in the UNDP', in M. Bøas and D. McNeill (eds) *Global Institutions and Development; Framing the World?* (Routledge, 2004). Please address correspondence to: Asunción St Clair, Department of Sociology, University of Bergen, Rosenbergs Gate 39, Bergen 5015, Norway. [email: Asun.St.Claire@sos.uib.no]